

1 **AMENDMENTS TO THE CLAIMS**

1-34 (Canceled).

1 35. (Currently Amended) A method of characterizing a large ~~group~~ plurality of biological cells,  
2 comprising:

3 a) separating the cells so that the cells of the large ~~group~~ plurality are preponderantly separated  
4 from each other;

5 b) characterizing each cell according to an aspect of the vibrational spectrum of each cell,  
6 wherein the vibrational spectrum of each cell is analyzed for indications that the cell is  
7 in a cell division stage, and;

8 c) statistically analyzing the characteristics of the cells.

9  
10 36. (Currently Amended ) The method of claim 35, wherein the results of the statistical analysis  
11 is the percentage of the cells of the ~~group~~ large plurality which are in a cell division  
12 stage.

1 37. (Previously presented) The method of claim 36, wherein the indication that a cell is in a cell  
2 division stage is the presence of a signal indicating DNA in the vibrational spectrum .

1 38. (Original) The method of claim 37, wherein the separated cells are located according to the  
2 fluorescence of the cells.

1 39. (previously presented ) The method of claim 35, wherein the vibrational spectrum of each  
2 cell is the recording of an infrared absorption spectrum for each cell.

3 40. (Currently Amended ) The method of claim 39, wherein the results of the statistical analysis  
4 is the percentage of the cells of the ~~group~~ large plurality which are in a cell division stage.

1 41. ( previously presented ) The method of claim 40, wherein the indication that a cell is in a cell  
2 division stage is the presence of a signal indicating DNA in the infrared absorption spectra.

1 42. ( previously presented ) The method of claim 41, wherein the separated cells are located  
2 according to the fluorescence of the cells.

1 43. (previously presented ) The method of claim 35, wherein the vibrational spectrum of each  
2 cell is the recording of a Raman spectrum for each cell.

3 44. (previously presented ) The method of claim 43, wherein the results of the statistical  
4 analysis is the percentage of the cells of the ~~group~~ large plurality which are in a cell division  
5 stage.

1 45. ( previously presented ) The method of claim 44, wherein the indication that a cell is in a cell  
2 division stage is the presence of a signal indicating DNA in the infrared absorption spectra.

1 46. ( previously presented ) The method of claim 45, wherein the separated cells are located  
2 according to the fluorescence of the cells.

- 1 47. (currently amended) A method, comprising:
- 2 locating a ~~very large number~~ large plurality of separated cells with a location means;
- 3 illuminating the cells with light;
- 4 recording light emitted from the cells; and
- 5 characterizing the vibrational spectrum of the light emitted from each cell located by the location
- 6 means, wherein the vibrational spectrum is analyzed for indications that the cell is in a
- 7 cell division stage.
- 1 48. (currently amended) The method of claim 47, wherein the ~~vibrational spectrum~~
- 2 ~~characterization means comprises a means for generating and for transmitting infrared~~
- 3 ~~light through each cell~~ is illuminated with infrared light.
- 1 49. (currently amended) The method of claim 48, wherein the ~~means for generating infrared~~
- 2 ~~light comprises~~ each cell is illuminated using a first laser having a first defined infrared
- 3 wavelength.
- 1 50. (previously presented) The method of claim 49, wherein the first laser is pulsed when the
- 2 location means locates a first cell in a position to be characterized by the first laser.
- 1 51. (previously presented) The method of claim 49, wherein the first defined wavelength
- 2 comprises a wavelength wherein DNA is highly absorbing.
- 1 52. (previously presented) The method of claim 51, wherein a second laser having a second
- 2 infrared wavelength is pulsed to characterize the cell, wherein the second infrared
- 3 wavelength comprises a wavelength wherein RNA is highly absorbing.

1 20040145497 Automated traffic control system having an interactive emergency vehicle  
2 warning therein

3 "Here, the matrix includes a large plurality of several hundred individual diodes behind a clear  
4 glass or polycarbonate lens. In normal operation, all or almost all of the yellow light-emitting  
5 diodes are operative for a signal "A" that transpires during normal nonemergency operation"

6 From these two examples, it seems clear that "large plurality" is in the region of a  
7 hundred or more.

8 No additional fee is required. The required fees and any insufficiency or overage (except  
9 issue fees) may be debited or credited to deposit account 08/2240. A signed deposit account  
10 authorization is on file for this case.

11 On the basis of the above amendments and remarks, reconsideration of this application  
12 and its early allowance is respectfully requested.

13 CERTIFICATE OF FACSIMILE TRANSMISSION UNDER 37 CFR 1.8(a) and (b), 37CFR 1.86(f)-  
14 I hereby certify that the following attached correspondence comprising Response and Amendment is being sent by facsimile transmission to  
15 FAX NUMBER 703-872-9306 on August 28, 2004.

16 Amendment and Response  
17 to:  
18 Commissioner of Patents, Alexandria, VA 22313-1450

19

20

21

Respectfully,

22

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PATENT TRADEMARK OFFICE

Docket No 993-021 serial No. 09/868,463 Inventors Diam, Max, Bergonetti, Jill, Gopen, Tamara, Boydston-White, Susie, ,  
Method of Characterization of Biological Entities-Filing date June 18, 2001, art unit 1743 examiner Jan M. Ludlow

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